REMARKS

By this Amendment, claims 1, 4-6, 8-9, 11, 15, 18, and 20-24 have been amended merely to recite the claimed subject matter without narrowing the scope of any of the claims, claims 3 and 19 have been cancelled without prejudice or disclaimer, and new claims 30-31 have been added merely to further recite the claimed subject matter without narrowing the scope of any of the claims. Applicants have amended the currently pending claims in order to expedite prosecution and do not, by this amendment, intend to abandon subject matter of the claims as originally filed or later presented. Moreover, Applicants reserve the right to pursue such subject matter in a continuing application. No new matter has been added. New claims 30-31 find support in the application, including pages 12-16 of the specification and Figures 1-6. Each of the new dependent claims 30-31 depend, directly or indirectly, from pending independent claims 27 and 18, respectively. Claims 1-2, 4-18, and 20-31 are pending in this patent application. Reconsideration of the rejections in view of the remarks below is requested.

The Office Action rejected claims 1-26 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. While Applicants believe the claims are definite already without amendment, to expedite prosecution, Applicants have amended independent claims 1 and 18 to provide that the structure as recited is configured to increase pupil filling of radiation in a pupil of the projection system relative to pupil filling of the radiation in the pupil of the projection system attributable to the diffractive element alone. Applicants respectfully submit these claims as unamended would have properly been understood in the manner now amended by those skilled in the art and thus these amendments should not been as narrowing the scope of any of the claims.

Further, the Office Action rejected claims 1, 2, 15, 17 and 18 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,650,399 to Baselmans et al. (hereinafter "Baselmans"). Applicants respectfully traverse the rejection, without prejudice.

Baselmans discloses a grating module of a wave front aberration measuring system. A grating module lens, having a positive back focal distance, focuses an incident fraction of a projection beam on a grating comprising a grating pattern in the grating plane, such that the uniform illumination over the field of said fraction of the projection beam is transformed into a substantially uniform angular distribution of illumination radiation. The grating diffracts the focused radiation and generates a spatial coherence distribution for the interfering wave

fronts at the detection plane. The grating module lens is chosen such that the zeroth diffracted order of the beam incident on the lens fills the pupil in the pupil plane of the projection system. (See, Baselmans, col. 11, lines 6-32).

The Office Action asserts that Baselmans discloses all the features of independent claims 1 and 18 as well as of dependent claims 2, 15, and 17. However, Applicants' respectfully submit that Baselmans fails to at least disclose, teach or suggest, among other things, a diffuser structure configured to increase the pupil filling of the radiation in the pupil of the projection system, as recited in independent claims 1 and 18 (and thus of dependent claims 2, 15 and 17).

As noted above, Baselmans discloses a grating module lens chosen such that the zeroth diffracted order of the beam incident on the lens fills the pupil in the pupil plane of the projection system. By choosing an appropriate focus of the lens, Baselmans discloses that pupil fill may be provided. However, Baselmans fails to disclose, teach or suggest a diffuser structure configured to increase the pupil filling of the radiation in the pupil of the projection system, as recited in independent claims 1 and 18. Indeed, Applicants acknowledge that, by providing focusing, a curved mirror can create portions of the radiation beam propagating at larger angles with respect to the optical axis and therefore increase the pupil filling. (See, e.g., paragraph [73] of Applicant's specification). But, this pupil filling ability may be in addition to the increase of pupil fill provided by a diffuser structure. (See, e.g., paragraphs [73] and [74] of Applicant's specification).

Therefore, for at least the above reasons, Baselmans fails to disclose, teach or suggest all the features recited by independent claims 1 and 18. Claims 2, 15, and 17 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1 and for the additional features recited therein. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102 should be withdrawn and the claims allowed.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. If questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss them.

Should any fees be due, please charge them to our deposit account no. 03-3975, under our order no. 081468/0306135. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced deposit account.

Respectfully submitted,
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